

Exhibit 48

DECLARATION OF Joanna Goode

I, Joanna Goode, declare under the penalty of perjury pursuant to 28 U.S.C. § 1746 that the foregoing is true and correct:

1. I am the Sommerville Knight Professor at the College of Education at the University of Oregon. I am over the age of 18 and have personal knowledge of all the facts stated herein, including knowledge based on my experience and information provided to me. If called as a witness, I could and would testify competently to the matters set forth below.

2. I submit this Declaration in support of the Plaintiff States' Motion for Preliminary Injunction.

Professional Background

3. I have served as a faculty member at the University of Oregon since 2008. Prior to my academic career, I was a high school mathematics and computer science teacher in a large, urban school. I have a PhD in Education from UCLA, and I have over 25 years of experience in computer science education research. I am a co-author of the book, *Stuck in the Shallow End: Education, Race, and Computing* (MIT Press), and I have authored over 50 peer-refereed journal articles. I have led a series of National Science Foundation-sponsored research projects examining systemic approaches to recruiting, retaining, and engaging students, especially underrepresented students, in high school computer science.

4. I lead research focused on broadening participation in K-12 computer science at the University of Oregon. I have served as Principal Investigator or Co-Principal Investigator on 15 NSF-funded projects continuously since 2006, during both Democratic and prior Republican presidential administrations. My NSF funded research has included the development of the Exploring Computer Science high school curriculum, the design and implementation of in-

person and online teacher professional development programs, and the development and integration of electronic textiles instructional unit and professional development for a national group of computer science teachers. Prior to April 25 of this year, I served as PI for two active projects funded by NSF grants, as well as PI on a subaward for two additional NSF awards from Portland State University and Duke University.

Projects Affected by NSF Priority Changes

5. On April 25, 2025, NSF provided notice that it had terminated one of my active grants, NSF Award ID 2417884. The project title associated with award 2417884 is Researching Equity, Access, & Learning in Computer Science Education (REAL-CS).

6. The then-current funding for award 2417884 was funded by NSF by an award issued on October 1, 2024, in the amount of \$2,000,000. That document is attached as Exhibit B-1.

7. The fundamental purpose of the project funded by award #2417884 is to serve as the national hub for the Exploring Computer Science (ECS) program, which increases access to high-quality computer science education for all high school students nationwide. The project builds on 15 years of prior work developing and researching the systemic ways that the ECS course serves to broaden participation in high school computer science.

Specifically, the REAL-CS program functions as a national hub supporting the adoption and implementation of ECS courses in high schools across the country. Our project provides direct assistance to states and regions implementing ECS, including providing teacher facilitators and materials for professional development for teachers, instructional resources including daily lesson plans, and research-based strategies to expand access to computing education. The REAL-CS project serves as the backbone for ECS implementation and has worked with over 20 regions

and states across the country. Since 2008, we have prepared over 4,000 teachers to teach ECS, many through partnerships with local universities who have received NSF funding to expand the ECS course in their region. This network approach has enabled the ECS course to scale nationally while maintaining high-quality implementation, enrolling 275,000 high school students over the last decade.

8. The project advances that purpose through four key strategies:

First, the project builds regional capacity by connecting with regional partners across the United States to provide course implementation support, teacher professional development resources, and curriculum materials. These partnerships are encouraged as part of NSF's "CS for All" program solicitation, noting, "PIs are encouraged to focus their RPPs on studying supports for teachers who are interested in using instructional materials that already have been developed and piloted and are now scaling nationally, such as Exploring Computer Science (ECS)".

Second, REAL-CS has supported co-designing, with a group of 12 experienced teachers, producing an updated edition of ECS curriculum to keep materials current with contemporary issues and emerging technologies, including the integration of artificial intelligence and machine learning concepts. The curricular materials include daily instructional lesson plans and are made freely available on the ECS website.

Third, the project focuses on developing the national teacher workforce through intensive professional development to teach the ECS course using pedagogy that is hands-on, engaging, relevant, and inclusive for all learners.

Finally, as a companion to the curriculum and teacher programs, REAL-CS includes a research plan for studying implementation of the ECS program across diverse geographical and educational contexts to identify effective practices for expanding computer science education.

Funding History for Terminated Grant[s]

9. Funding for Researching Equity, Access, & Learning in Computer Science Education (REAL-CS) was initially requested by an application on January 18, 2024 to NSF's "Computer Science for All" program in the Computer and Information Science and Engineering division. The application was processed by NSF and selected for funding as described above. See Exhibit B-1.

10. In my experience, and as stated in NSF's Proposal & Award Policies and Procedures Guide, all proposed projects submitted to NSF are evaluated for both intellectual merit and broader societal impacts, and must score highly in both areas to be considered for funding.

11. The original term of funding under award 2417884 was for the period between October 1, 2024 and September 30, 2026.

12. As of April 25, 2025, \$1.9 million of current funding had not been disbursed by NSF.

Termination Notice

13. In my experience, termination of an active project's funding is rare and I have never had a project's funding terminated. To my knowledge, prior to 2025, termination has only occurred in cases of scientific or budgetary misconduct, typically with prior notice and opportunities to respond and correct any underlying issues.

14. Nevertheless on April 25, 2025 NSF sent notice that award #2417884 was terminated. That notice is attached as Exhibit B-2. I am aware that NSF also sent many other notices terminating projects around the nation on the same date. This is unprecedented in my experience with NSF.

15. The notice terminating award #2417884 came without any previous process or communication about the project from NSF. The notice contains little explanation for the termination, and no explanation with respect to the intellectual merit or broader impact of the underlying project. The notice recites that “termination of certain awards is necessary because they are not in alignment with current NSF priorities” and continues:

NSF is issuing this termination to protect the interests of the government pursuant to NSF Grant General Conditions (GC-1) term and condition entitled 'Termination and Enforcement,' on the basis that they no longer effectuate the program goals or agency priorities. This is the final agency decision and not subject to appeal.

Other termination notices issued by NSF in April and May of this year that I have seen are identical, apart from grant numbers.

16. The termination notice indicated that this grant no longer effectuates program goals or agency priorities. The NSF website further stated that “research on broadening participation, must aim to create opportunities for all Americans everywhere.” My understanding is that one of NSF’s specific purposes is to promote participation in STEM fields by women, minorities and people with disabilities. More broadly, I understand that NSF’s purpose is to support scientific and engineering research and education. As described in paragraphs 7 and 8 above, my project advances those goals. NSF recognized as much when, after careful consideration in its ordinary process, it approved funding for the project.

Harms from NSF Funding Terminations

17. The termination of award #2417884 by NSF will terminate the project.

18. As a result, the national infrastructure supporting the Exploring Computer Science program will be severely compromised. Without continued funding, we will be unable to coordinate with our regional partners, support the planned professional development for

hundreds of teachers, meaningfully distribute the recently updated curriculum materials, or continue our research on effective practices for broadening participation in computing. Importantly, this will also disrupt our ability to maintain and support our long-standing group of teacher facilitators who lead ECS teacher workshops across the nation. This termination will directly impact an estimated 20,000 students who will miss out on impactful computer science learning experiences.

The termination of the REAL-CS grant specifically undermines national efforts to expand access to computer science education at a moment when technology is increasingly shaping opportunities and outcomes in society. This comes at a particularly crucial time as artificial intelligence tools and applications are rapidly transforming the workforce and society. The REAL-CS project was responding to this shift with the updated ECS curricular materials, which prominently features artificial intelligence and machine learning content. By discontinuing support for the most extensively researched and widely implemented introductory high school computer science program in the nation, NSF is undermining a critical component of the national computing education infrastructure.

Ultimately, this termination also disrupts progress after 20 years of continuous work in broadening participation in computing, threatens the sustainability of computer science programs in schools nationwide, and halts research that would have provided crucial insights into effective strategies for expanding participation for all students, especially those who are from groups historically underrepresented in computer science.

19. In addition, one staff position will need to be reduced and two staff positions will be terminated for people supported by this grant. Further, 20 ECS teacher facilitators will not receive stipends for their facilitation of teacher workshops.

20. There is no way to recover lost time or restore research continuity once disrupted, and staff who depart will take their training and expertise with them, requiring new investment in training.

Conclusion

21. The mass termination of previously approved NSF grants based on purported new priorities will undermine the NSF's mission to support science, engineering and mathematical education and research. Targeting projects like mine that specifically promote participation in STEM by underrepresented groups including women, minorities, and disabled people will close pathways to bring underrepresented groups into the STEM workforce. Grant terminations make it harder to secure talent needed to continue effective research efforts. These harms are ongoing and, in many instances, irreparable.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed this 16th day of May, 2025, in Eugene, OR.



Joanna Goode
Sommerville Knight Professor

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SPS Award Setup

From: Sponsored Project Services
Sent: Friday, September 13, 2024 4:26 PM
To: SPS Award Setup
Subject: EPCS#: 33882 FW: NSF Award Notice for Award ID 2417884 - Amendment ID 000

Categories: For Distribution

Hello Setup Team,

EPCS#: 33882
Joanna Goode
Grant: TBA

Thanks,
Laurie

From: jgosey@nsf.gov <jgosey@nsf.gov>
Sent: Friday, September 13, 2024 2:45 PM
To: Sponsored Project Services <sponsoredprojects@uoregon.edu>
Cc: cqueen@nsf.gov; dlholmes@nsf.gov; Gayithri Jayathirtha <gayithri@uoregon.edu>; gjohns@nsf.gov; Joanna Goode <goodej@uoregon.edu>; jforbes@nsf.gov; kmayberr@nsf.gov; narce@nsf.gov; ong@cresst.org; postrom@nsf.gov; rshheehey@nsf.gov; scash@nsf.gov; tinguyen@nsf.gov; tvirgil@nsf.gov; tzeigler@nsf.gov
Subject: NSF Award Notice for Award ID 2417884 - Amendment ID 000

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2417884

Managing Division Abbreviation: CNS

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): UNIVERSITY OF OREGON

Recipient Address: 1776 E 13TH AVE EUGENE, OR 97403-1905

Official Recipient Email Address: SponsoredProjects@uoregon.edu

Unique Entity Identifier (UEI): Z3FGN9MF92U2

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 09/13/2024

Amendment Number: 000

Proposal Number: 2417884

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 09/11/2024.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

The PIs will participate in the overall CSforAll program evaluation, maintain an up-to-date project website, and attend at least one PI meeting per year.

AWARD INFORMATION

Award Number (FAIN): 2417884

Award Instrument: Standard Grant

Award Date: 09/13/2024

Award Period of Performance: Start Date: 10/01/2024 End Date: 09/30/2026

Project Title: Researching Equity, Access, & Learning in Computer Science Education (REAL-CS)

Managing Division Abbreviation: CNS

Research and Development Award: Yes

Funding Opportunity: NSF 21-571 Broadening Participation in Computing

Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$2,000,000
Total Intended Award Amount: \$2,000,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$2,000,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

| | | |
|--|--|---|
| Principal Investigator: Joanna Goode | Email: goodej@uoregon.edu | Organization: UNIVERSITY OF OREGON |
| co-Principal Investigator: Christine Ong | Email: ong@cresst.org | Organization: UNIVERSITY OF CALIFORNIA, LOS ANGELES |
| co-Principal Investigator: Gayithri Jayathirtha | Email: gayithri@uoregon.edu | Organization: UNIVERSITY OF OREGON |

NSF CONTACT INFORMATION

| | | |
|--|---|--|
| Managing Grants Official (Primary Contact) Name: Jannele L. Gosey Email: jgosey@nsf.gov Phone: (703) 292-4445 | Awarding Official Name: Jannele L. Gosey Email: jgosey@nsf.gov | Managing Program Officer Name: Jeffrey Forbes Email: jforbes@nsf.gov Phone: (703) 292-5301 |
|--|---|--|

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at <https://www.nsf.gov/awards/managing rtc.jsp>.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-571 Broadening Participation in Computing.

| A. Senior Personnel BUDGET | |
|----------------------------------|-------|
| Senior Personnel Count | 4.00 |
| Senior Personnel Calendar Months | 20.30 |
| Senior Personnel Academic Months | 0.00 |

| | |
|---|-----------|
| Senior Personnel Summer Months | 0.00 |
| Senior Personnel Amount | \$185,368 |
| B. Other Personnel | |
| Post Doctoral Scholars | |
| Post Doctoral Count | 0.00 |
| Post Doctoral Calendar Months | 0.00 |
| Post Doctoral Academic Months | 0.00 |
| Post Doctoral Summer Months | 0.00 |
| Post Doctoral Amount | \$0 |
| Other Professionals | |
| Other Professionals Count | 4.00 |
| Other Professionals Calendar Months | 19.20 |
| Other Professionals Academic Months | 0.00 |
| Other Professionals Summer Months | 0.00 |
| Other Professionals Amount | \$110,631 |
| Graduate Students | |
| Graduate Students Count | 0.00 |
| Graduate Students Amount | \$0 |
| Undergraduate Students | |
| Undergraduate Students Count | 0.00 |
| Undergraduate Students Amount | \$0 |
| Secretarial - Clerical | |
| Secretarial - Clerical Count | 0.00 |
| Secretarial - Clerical Amount | \$0 |
| Other | |
| Other Count | 0.00 |
| Other Amount | \$0 |
| <i>Total Salaries and Wages (A+B)</i> | \$295,999 |
| C. Fringe Benefits | \$198,989 |
| <i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i> | \$494,988 |
| D. Equipment | \$0 |
| E. Travel | |
| Domestic | \$28,580 |
| International | \$8,621 |
| F. Participant Support Costs | |

| | |
|---|--------------------|
| Participant Support Costs Stipends | \$418,750 |
| Participant Support Costs Travel | \$261,973 |
| Participant Support Costs Subsistence | \$0 |
| Participant Support Costs Other | \$0 |
| Total Number of Participants | 477.00 |
| <i>Total Participant Costs (F)</i> | \$680,723 |
| G. Other Direct Costs | |
| Materials Supplies | \$8,228 |
| Publication Costs | \$0 |
| Consultant Services | \$185,000 |
| Computer Services | \$0 |
| Subawards | \$152,252 |
| Other | \$49,600 |
| <i>Total Other Direct Costs (G)</i> | \$395,080 |
| H. Total Direct Costs (A Through G) | \$1,607,992 |
| I. Indirect Costs* | \$392,008 |
| J. Total Direct and Indirect Costs (H + I) | \$2,000,000 |
| K. Fees | \$0 |
| L. Total Amount of Request (J) OR (J + K) | \$2,000,000 |
| M. Cost Sharing Proposed Level | \$0 |

*Indirect Cost Rates

| Item Name | Indirect Cost Rate |
|-----------------------------|--------------------|
| Modified Total Direct Costs | 49.0000% |

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

Foxman Termination Notice

Friday, May 16, 2025 at 1:17:12 PM Pacific Daylight Time

Subject: Notice from National Science Foundation
Date: Friday, April 25, 2025 at 8:53:41 AM Pacific Daylight Time
From: NSF Grants
To: V P for Research & Innovation Office
CC: Sponsored Project Services

U.S. National Science Foundation Division of Grants and Agreements
2415 Eisenhower Avenue
Alexandria, Virginia 22314
(703) 292-8210

04/25/2025

Anshuman Razdan ("AR")
Vice President for Research and Innovation
University of Oregon Eugene
vpri@uoregon.edu

Dear Anshuman Razdan ("AR"):

The U.S. National Science Foundation (NSF) has undertaken a review of its award portfolio. Each award was carefully and individually reviewed, and the agency has determined that termination of certain awards is necessary because they are not in alignment with current [NSF priorities](#).

Effective immediately, the following are terminated:

| NSF Award Id |
|--------------|
| 2128746 |
| 2417884 |

NSF is issuing this termination to protect the interests of the government pursuant to NSF Grant General Conditions (GC-1) term and condition entitled 'Termination and Enforcement,' on the basis that they no longer effectuate the program goals or agency priorities. This is the final agency decision and not subject to appeal.

Costs incurred as a result of this termination may be reimbursed, provided such costs would otherwise be allowable under the terms of the award and the governing cost principles. In accordance with your award terms and conditions, you have 30 days from the termination date to furnish a summary of progress under the award and an itemized accounting of allowable costs incurred prior to the termination date.

Sincerely,

Jamie H. French, Division Director
Office of Budget Finance and Award Management (BFA)
Division of Grants and Agreements (DGA)